设备管理 **韦家宁** 2024-07-03 发表

组网及说明



组网说明:

本案例采用思科模拟器的路由器模拟IOS镜像恢复的典型案例。

在日常工作中,会偶尔遇到用户误删网络设备镜像导致设备成砖的情况,当设备成砖后,还可以通过 一些特定的方式来恢复IOS镜像。

配置过程:

- 1、复现误删IOS镜像的操作。
- 2、使用TFTP的方式将IOS镜像导入到路由器。

配置步骤

操作过程:

(1) 复现误删IOS镜像的操作。

特别说明:删除前,先使用dir命令记录IOS镜像的名称。

c1841-advipservicesk9-mz.124-15.T1.bin

3	-rw-	33591768	<no< th=""><th>date></th><th>c1841-advipservicesk9-mz.124-15.Tl.bin</th></no<>	date>	c1841-advipservicesk9-mz.124-15.Tl.bin
2	-rw-	28282	<no< td=""><td>date></td><td>sigdef-category.xml</td></no<>	date>	sigdef-category.xml
1	-rw-	227537	<no< td=""><td>date></td><td>sigdef-default.xml</td></no<>	date>	sigdef-default.xml

记录完成后,使用delete删除IOS镜像文件。

```
Router#delete c1841-advipservicesk9-mz.124-15.T1.bin
Delete filename [c1841-advipservicesk9-mz.124-15.T1.bin]?
Delete flash:/c1841-advipservicesk9-mz.124-15.T1.bin? [confirm]
Router#
```

删除完成后,使用reload命令重启



配置关键点

重启后发现无法正常启动进入IOS系统,说明已经刷成砖。

使用如下操作恢复路由器的IOS镜像。

rommon 1 > IP_ADDRESS=192.168.10.1 //设置路由器的IP地址 rommon 2 > IP_SUBNET_MASK=255.255.255.0 //设置子网掩码 rommon 3 > DEFAULT_GATEWAY=192.168.10.2 //设置默认网关 rommon 4 > TFTP_SERVER=192.168.10.2 //指向TFTP服务器 rommon 5 > TFTP_FILE=c1841-advipservicesk9-mz.124-15.T1.bin //指定要下载的文件 rommon 6 > set //查看配置的情况 DEFAULT_GATEWAY=192.168.10.2 IP_ADDRESS=192.168.10.1 IP_SUBNET_MASK=255.255.255.0 PS1=rommon!> TFTP_FILE=c1841-advipservicesk9-mz.124-15.T1.bin TFTP_SERVER=192.168.10.2 rommon 7 > tftpdnld //下载文件

IP_ADDRESS: 192.168.10.1 IP_SUBNET_MASK: 255.255.0 DEFAULT_GATEWAY: 192.168.10.2 TFTP_SERVER: 192.168.10.2

TFTP_FILE: c1841-advipservicesk9-mz.124-15.T1.bin

Invoke this command for disaster recovery only.

WARNING: all existing data in all partitions on flash will be lost!

Do you wish to continue? y/n: [n]: y //这里输入y后回车

开始下载

Router5

- 0

×

Physical	Config	CLI	Attributes													
				10	S Comm	and Line	e Interfa	ce								
program	flash	locatio	on 0x61f20	000									-	-		1
program	flash	locatio	on 0x61f30	000												
program	flash	locatio	on 0x61f40	000												
program	flash	locatio	on 0x61f50	000												
program	flash	locatio	on Ox61f60	000												
program	flash	locatio	on 0x61f70	000												
program	flash	locatio	on 0x61f80	000												
program	flash	locatio	on 0x61f90	000												
program	flash	locatio	on Ox61fa0	000												
program	rlash	locatio	on Uxelfb0	000												
program	rlash	locatio	on Oxelfco	000												
program	Tlash	locatio	on Oxelfdo	500												
program	Tlash	locatio	on Uxelfeu	000												
program	riash	locatio	on Oxelfro	000												
program	TTabu	TOCACIO	n oxezooo	500												
rommon	8 > tf	tpdnld														
	IP_	ADDRESS	192.168.	10.1												
I	P_SUBN	ET_MASK:	255.255.	255.0												
DE.	FAULT_	GATEWAY:	192.168.	10.2												
	TFTP	SERVER:	192.168.	10.2												
	TF	TP_FILE:	c1841-ad	vipserv:	icesk9	-mz.13	4-15.	T1.b:	in							
Invoke	this c	ommand 1	for disast	er recon	very o	nly.										
WARNING	: all (existing	data in	all part	tition	s on f	flash	will	be	lost	:!					
Do you	wish t	o contin	nue? y/n:	[n]:	2											
Receivi	ng cl8	41-advig	servicesk	9-mz.124	4-15.T	1.bin	from	192	168.	10.3	2					
								1111				 	 111	!!!	 	
		mmin						1111				 	 		 	

下载完成后,使用reset命令重启系统。

Router5						-		>
Physical Config	CLI	Attributes						
			IOS Command Line I	nterface				
program flash	locatio	on 0x61de0000)					~
program flash	locatio	on 0x61df0000	0					~
program flash	locatio	on 0x61e00000	0					
program flash	locatio	on 0x6le10000	0					
program flash	locatio	on 0x61e20000	0					
program flash	locatio	on 0x61e30000)					
program flash	locatio	on 0x61e40000	0					
program flash	locatio	on 0x61e50000	0					
program flash	locatio	on Ox6le60000	0					
program flash	locatio	on 0x61e70000	0					
program flash	locatio	on 0x61e80000	0					
program flash	locatio	on 0x61e90000	0					
program flash	locatio	on 0x6lea0000	0					
program flash	locatio	on 0x61eb0000	0					
program flash	locatio	on 0x6lec0000	0					
program flash	locatio	on 0x6led0000	0					
program flash	locatio	on 0x6lee0000	0					
program flash	locatio	on 0x61ef0000	0					
program flash	locatio	on 0x61f00000	0					
program flash	locatio	on 0x61f10000	2					
program flash	locatio	on 0x61f20000	2					
program flash	locatio	on 0x61f30000	2					
program flash	locatio	on 0x61f40000	2					
program flash	locatio	on 0x61f50000						
program flash	locatio	on Oxelfe0000						
program flash	locatio	on Oxelf70000						
program flash	locatio	on 0x61280000						
program flash	locatio	on Oxerryouou						
program flash	locatio	on Oxelfa0000						
program flash	locatio	on Oxelfboood						
program flash	locatio	on Oxelfcould						
program flash	locatio	on Oxelfa0000						
program flash	locatio	on oxelfeoood						
program riash	locatio	on Oxell20000						
program flash	rocatio	5n 0xe2000000	,					
rommon 9 > res	et							~
		1				_	-	
					Copy		Paste	

正在启动

Router5
Physical Config CLI Attributes
IOS Command Line Interface
program flash location 0x61e50000
program flash location 0x61e60000
program flash location 0x61e70000
program flash location 0x6le80000
program flash location 0x6le90000
program flash location 0x6lea0000
program flash location 0x6leb0000
program flash location 0x6lec0000
program flash location 0x6led0000
program flash location 0x6lee0000
program flash location 0x6lef0000
program flash location 0x61f00000
program flash location 0x61f10000
program flash location 0x61f20000
program flash location 0x61f30000
program flash location 0x61f40000
program flash location 0x61f50000
program flash location 0x61f60000
program flash location 0x61f70000
program flash location 0x61f80000
program flash location 0x61f90000
program flash location 0x61fa0000
program flash location 0x61fb0000
program flash location 0x61fc0000
program flash location 0x61fd0000
program flash location 0x61fe0000
program flash location 0x61ff0000
program flash location 0x62000000
rommon 9 > reset System Bootstrap, Version 12.3(8r)T8, RELEASE SOFTWARE (fcl)
Cisco 1841 (revision 5.0) with 114688K/16384K bytes of memory.
Readonly ROMMON initialized
Self decompressing the image :

启动完成,可以进入系统。

hysical Config CLI Attributes	
	IOS Command Line Interface
Copyright (c) 1986-2007 by Cise	co Systems, Inc.
Compiled Wed 18-Jul-07 04:52 by	y pt_team
Image text-base: 0x60080608, da	ata-base: 0x6270CD50
This product contains cryptogra	aphic features and is subject to United
States and local country laws of	governing import, export, transfer and
ase. Delivery of Cisco cryptog	raphic products does not imply
third-party authority to import	t, export, distribute or use encryption.
Importers, exporters, distribut	tors and users are responsible for
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agree to comply with applicable	e laws and regulations. If you are unable
to comply with U.S. and local :	laws, return this product immediately.
A summary of U.S. laws governing	ng Cisco cryptographic products may be found at:
http://www.cisco.com/wwl/export	t/crypto/tool/stqrg.html
If you require further assistan	nce please contact us by sending email to
export@cisco.com.	
Cisco 1841 (revision 5.0) with	114688K/16384K bytes of memory.
Processor board ID FTX0947218E	
1860 processor: part number 0,	mask 49
FastEthernet/IEEE 802.3 inter	rface(s)
191K bytes of NVRAM.	
63488K bytes of ATA CompactFlag	sh (Read/Write)
Cisco IOS Software, 1841 Softwa	are (C1841-ADVIPSERVICESK9-M), Version 12.4(15)T1,
SOFTWARE (fc2)	
Technical Support: http://www.c	cisco.com/techsupport
Copyright (c) 1986-2007 by Cisc	co Systems, Inc.
Compiled Wed 18-Jul-07 04:52 b	y pt_team
0	
System Configurat:	ion platog

Would you like to enter the initial configuration dialog? [yes/no]:

至此,思科路由器IOS镜像恢复的典型案例已完成。